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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/060,313	04/15/98	LINEBARGER	M TN-104

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EXAMINER

ARMSTRONG, A

ART UNIT	PAPER NUMBER
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2741

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DATE MAILED: 06/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/060,313

Applicant(s)

LINEBARGER ET AL.

Examiner

Angela A. Armstrong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wen (US Patent No. 5,562,453) in view of Takebayashi et al. (US Patent No. 5,357,596).

Regarding claims **1, 2-5, and 12-16,**

“visual display device...” is taught by Wen at Figure 1, element 5 and col. 3, lines 8-48;

“microphone...” is taught by Wen at Figure 1, element 2 and col. 3, lines 8-48;

“speaker...” is taught by Wen at Figure 1, element 6 and col. 3, lines 8-48;

“processor...” is taught by Wen at col. 3, lines 8-48 as one of the standard computational functional units of a computer to perform functions of input, output, computation, control and memory;

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“displaying a picture”, (see column 4, lines 6-7 where Wen discloses that the system prompt displays a picture of the item selected category);

“generating a speech prompt”, (see column 4, lines 5-6 where Wen discloses that the system provides the user with a “first vocal prompt”);

“inputting a speech response”, (see column 3, lines 10-11 where Wen discloses that the input to the system is via microphone);

Wen does not specifically teach “performing speech recognition” and “performing natural language analysis...analyzing content...recognized words as synonyms...accepting synonyms...”. However, refer to Takebayashi et al. who teach a speech dialogue system for improving human-computer interaction which the system performs semantic understanding of a user’s spoken words (refer to col. 8, lines 3-68 continuing to col. 16, lines 1-17)..

Therefore, to the extent that Wen does not teach “performing speech recognition” and “performing natural language analysis”, it would have been obvious to one of ordinary skill at the time of invention to modify the biofeedback training system of Wen to implement a speech understanding and dialogue management system as taught by Takebayashi et al. because such a modification would improve the system evaluation of the user which improve the performance of the training tutor.

Wen does not specifically disclose a method of conducting speech therapy. Wen discloses operational examples for using the system which teaches how one would implement the system in a speech training environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Wen and apply the operational examples as taught by Wen to develop a computerized method for

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conducting speech therapy. Wen teaches that such a use of her system would be a tremendous advantage for a user when a person is not available to assist in training.

Regarding claims 6-8 and 17-19, "...altering a visual characteristic..." is taught by Wen at col. 4, lines 55-62.

Regarding claims 10, 11, and 20, "speech prompt...activated by an icon..." is taught by Wen at col. 4, lines 63-68 continuing to col. 5, lines 1-3.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wen in view of Takebayashi et al. as applied to claim 1 above, and further in view of Shpiro et al. (US Patent No. 5,487,671).

Regarding claim 9, "...replaying the speech response". Neither Wen nor Takebayashi teach replaying a speech response. However, refer to Shpiro et al. who discloses a computerized system for teaching speech in which the system replays the user's response to a testing sequence (Figure 5B, step 520).

Therefore, to the extent that Wen and Takebayashi et al. do not replay a user's response, it would have been obvious to one of ordinary skill at the time of invention to modify the training system of Wen to implement the speech understanding system of Takebayashi et al. and to further modify the system to replay the user's response to testing sequences as taught by Shpiro et al., because such a modification would provide a means for the user to know that the system is capturing and analyzing their intended response.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bernstein (US Patent No. 5,870,709) discloses a computer system for adaptive interactive teaching and testing which implements a speech recognition component.

Mostow et al. (US Patent No. 5,920,838) discloses a reading and pronunciation tutor which captures, recognizes and evaluates the read material.

Nathanson (US Patent No. 5,618,180) discloses a method for teaching using a computer which provides visual display of elements and interactive icons.

Shapiro et al. (US Patent No. 5,766,015) an apparatus for language training using a computer which prompts the user for a response, recognizes the response, evaluates the responses, and replays the users response back to the user.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AAA
June 4, 2000


Richmond Dorvil
Primary Examiner